



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,857	04/14/2004	Mutsunori Igarashi	2102487-991181	6871
26379	7590	04/28/2005	EXAMINER	
DLA PIPER RUDNICK GRAY CARY US, LLP			TAT, BINH C	
2000 UNIVERSITY AVENUE			ART UNIT	
E. PALO ALTO, CA 94303-2248			PAPER NUMBER	
			2825	

DATE MAILED: 04/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/824,857

Applicant(s)

IGARASHI ET AL.

Examiner

Binh C. Tat

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-16 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 8-16 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04/14/04.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to application 10/824857 file on 04/14/04.

Claim 8-16 remain pending in the application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 8-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Igarashi et al.

(US Patent 6546540).

3. As to claim 8, Igarashi et al. teach a computer implemented layout design method, comprising: generating a first line having a first line width and extending in a predetermined direction (see fig 3 and fig 13 element 11 col 8 lines 1-5); generating a second line having a second line width, extending in a direction different from said first line, and having its terminal end overlapping a terminal end of said first line (see fig 3 and fig 13 element 13 col 8 lines 1-21); stretching said first line in a longitudinal direction thereof (see fig 4 fig 5 fig 6 col8 lines 60 to col 10 lines 44); stretching said second line in a longitudinal direction thereof by a length 1/2 times as long as the second line width (see fig 4 fig 5 fig 6 col8 lines 60 to col 10 lines 44 and background); deleting a projection from the terminal end of said first line and the terminal end of said second line, the projection protruding from an overlapped area where the terminal end of

Art Unit: 2825

said first line and the terminal end of said second line overlap (see fig 3-13 col 8 lines 13 to col 12 lines 12); and setting a connection pattern having a polygon connecting said first and second lines at an intersection point of a longitudinal center line of said first line and a longitudinal center line of said second line (see fig 3-6 col 8 line 13 to col 10 lines 44).

4. As to claim 9, Igarashi et al. teach wherein said first and second lines are lines generated in different levels (see fig 3-6 col 8 line 31 to col 9 lines 15).

5. As to claim 10, Igarashi et al. teach wherein said first and second lines are lines generated in the same level (see fig 3-6 col 8 line 31 to col 9 lines 15).

6. As to claim 11, Igarashi et al. teach wherein said polygon is octagonal (see fig 4-5 col 9 lines 15-62).

7. As to claim 12, Igarashi et al. teach wherein said first and second lines are lines generated in different levels (see fig 3-6 col 8 line 31 to col 9 lines 15).

8. As to claim 13, Igarashi et al. teach wherein said first and second lines are lines generated in the same level (see fig 3-6 col 8 line 31 to col 9 lines 15).

9. As to claim 14, Igarashi et al. teach wherein in said stretching said first line in the longitudinal direction thereof said first line is stretched by a length $1/2$ times as long as the line width of said second line (see fig 4 fig 5 fig 6 col 8 lines 60 to col 10 lines 44 and background).

10. As to claim 15, Igarashi et al. teach wherein in said stretching said second line in the longitudinal direction thereof said second line is stretched by a length $1/2$ times as long as the line width of said first line (see fig 4 fig 5 fig 6 col 8 lines 60 to col 10 lines 44 and background).

11. As to claim 16, Igarashi et al. teach a manufacturing method of a semiconductor integrated circuit, comprising: forming a first line extending in a predetermined direction on a

Art Unit: 2825

semiconductor substrate (see fig 3 col 8 lines 31-53); forming a level interlayer insulating film on said first line (see fig 3 col 8 lines 31-60); forming a polygon via hole penetrating through said level interlayer insulating film (see fig 4-5 col 8 line 61 to col 9 lines 62); forming a connection conductive portion filling said polygon via hole and connecting with said first line (see fig 4-5 col 8 line 61 to col 9 lines 62); and forming a second line extending at an angle unperpendicularly relative to said first line and having a terminal end connected to said connection conductive portion (see fig 3-6 col 8 lines 13 to col 10 lines 44).

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh C. Tat whose telephone number is (571) 272-1908. The examiner can normally be reached on 7:30 - 4:00 (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew Smith can be reached on (571) 272-1907. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-1908 for regular communications and (703) 305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Binh Tat
Art unit 2825
November 13, 2004

Aluando

THUAN DO

04/27/2005